Mine Safety and Health Administration (MSHA)

Government Performance and Results Act of 1993 (GPRA)
Strategic and Performance Plan Annual Report
Fiscal Year 1999

May 22, 2000

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Strategic and Performance Plan Annual Report for Fiscal Year 1999
Government Performance and Results Act

1. Introduction

The Mine Safety and Health Administration (MSHA), in partnership with the American mining community, works to eliminate fatalities, reduce the frequency and severity of accidents, and minimize health hazards associated with the mining industry in accordance with the Federal Mine Safety and Health Act of 1977. All of MSHA's resources are dedicated to ensuring that each of the approximately 360,000 men and women who work in over 14,000 American mines will go to their jobs without placing themselves at risk of injury, illness, or loss of life to make a living.

The Mine Act requires MSHA to inspect every underground mine four times each year and all surface mines two times each year to determine compliance with federal safety and health regulations. In carrying out other legislative mandates in the Mine Act, MSHA conducts additional inspections of gassy mines, conducts spot inspections of mines with particularly hazardous conditions, investigates mining accidents, investigates and refers acts of criminal wrongdoing to the Department of Justice for prosecution, investigates discrimination complaints, assesses and collects civil penalties, provides education and training assistance, conducts tests of certain mining equipment and materials for permissibility and approval for use in underground mines, compiles and analyzes accident and injury data, provides technical assistance to the mining industry, promulgates safety and health regulations, and manages the State Grants program. MSHA's FY 1999 budget was $211 million.

1.1 Reporting Requirement

The Government Performance and Results Act of 1993 (GPRA) requires each Agency to prepare a strategic plan covering six years, an annual performance plan that presents the strategies and budget requirements to achieve the short-term annual objectives as measured against the strategic goals, and an annual performance report which compares planned results with actual results. The MSHA FY 1997–2002 Revised Strategic Plan was prepared in September 1998 and the FY 1999 Performance Plan Update was submitted in November 1998. Both plans were developed as part of the integrated Department of Labor planning process. This report presents MSHA's results of its FY 1999 performance measures.

1.2 Strategic Plan Goals

MSHA's strategic goals support the Department of Labor Strategic Goal 3, *Quality Workplaces—Foster quality workplaces that are safe, healthy, and fair* and the Outcome Goal *Reduce workplace injuries, illnesses, and fatalities*.

- **Strategic Goal: Reduce injuries in the Nation's mines**

  Performance objectives:
  - Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years.
  - Reduce mine industry injuries (nonfatal-days-lost incidence rate) to below the average number recorded for the previous 5 years for all mines.

- **Strategic Goal: Reduce miners' overexposure to health hazards**

  Performance objectives:
  - Reduce by 20% the percentage of samples out of compliance with the respirable coal mine dust standard.
  - Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations.
  - Reduce by 20% the percentage of cases where abatement time for silica overexposures exceeded 6 months in metal/nonmetal mines.
  - Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the noise standard in the highest risk occupations.

1.3 Summary of Results

Performance objective: **Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years**.

Result: **Met goal**. The 80 mine fatalities in FY 1999 equals the 80 fatalities in FY 1998—the lowest number in a fiscal year. The FY 1999 figure is well below the previous 5-year average of 92 and sets the new FY 1995–1999 baseline at 89. In coal mines, there were 36 FY 1999 fatalities compared with 28 in FY 1998; in metal and nonmetal mines there were 44 fatalities in FY 1999 compared with 52 fatalities in FY 1998.

Performance objective: **Reduce mine industry injuries (nonfatal-days-lost incidence rate) to below the average number recorded for the previous 5 years for all mines**.

Result: **Met goal**. For nonfatal-days-lost injuries, the incidence rate of 3.47 for FY 1999 is well below the previous 5-year average of 4.07. For coal mines the FY 1999 nonfatal-days-lost injury rate was 4.87 compared with 5.84 for the previous 5-year average. For metal and nonmetal mines the FY 1999 rate of 2.80 is below the previous 5-year average of 3.09.

Performance objective: **Reduce by 20% the percentage of samples out of compliance with the respirable coal mine dust standard**.

Result: **Met goal**. In FY 1999 the percent of non-compliant samples was 11.4%, for a reduction of 12.2% compared to the FY 1998 baseline of 13.0%—exceeding the annual performance goal of a 5% reduction.

Performance objective: **Reduce by 20% the percentage of samples in metal and nonmetal mines that are out of compliance with the silica standard for the highest risk occupations**.

Result: **Met goal**. In FY 1999, 87.3% of respirable dust samples taken in the highest risk job categories were within acceptable enforcement levels, an increase from the 81.9% recorded during the 1997-1998 baseline period. In order to provide an accurate dust measure that accounts for changes in the types of mines, commodities, and jobs sampled, MSHA uses an index that prevents bias across the occupational category sample distribution. The FY 1999 index of 75.1 is based on 980 samples with 124 not in compliance when compared to the comparable baseline sample population. This positive result is considerably lower than the 90 index target.

Performance objective: **Reduce by 20% the percentage of cases where abatement time for silica over-exposures exceeded 6 months in metal/nonmetal mines.**

Result: Not computed; goal under review.

Performance objective: **Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the noise standard in the highest risk occupations**.

Result: **Did not meet goal**.. Giving greater emphasis to reduction of noise risk is evidenced by the preliminary results of non-compliant noise samples with a GPRA rating of 111.8% which did not meet the FY 1999 target of 90%.

1.4 MSHA Safety and Health Initiatives

FY 1999 safety initiatives.

MSHA safety efforts included its mandated inspection program, safety alerts, special focus "safety sweeps," education and training programs, and technical support programs. Special emphasis continued to be placed on safety training and awareness.

In the metal and nonmetal mining sector, the continuing strong national economy and the Transportation Equity Act for the 21st Century has increased demand for sand, gravel, and stone products—key materials in road and building construction. This in turn has led to an increase in new metal and nonmetal mines and miners. Many of these mines are small businesses without the resources for adequate safety and health programs. In 1998, one-third of metal and nonmetal fatalities occurred at mines with five employees or less, yet these mines account for only one-tenth of metal and nonmetal workhours. MSHA's efforts to address metal and nonmetal fatalities and injury rates include conducting outreach efforts such as a recent Small Mines Initiative. The Agency conducted inspections and safety talks at approximately 5,000 mines from May 10–28, 1999. During these visits, emphasis was given to: use of safety belts and lines for work in elevated locations; proper procedures in operating and maintaining conveyer belts and similar equipment; proper lockout and tagout of electrical equipment; blocking machinery against movement during maintenance and repair; and maintaining a safe powered haulage environment.

A key effort in FY 1999 involved the development of training regulations for shell dredging, sand, gravel, surface stone, surface clay, colloidal phosphate, and surface limestone mines. Although the Mine Act requires all miners to receive training prior to working in a mine and annually while employed as a miner, in 1980, Congress added language to MSHA's appropriations bill prohibiting MSHA from expending funds to carry out the provisions of Section 115 of the Mine Act with respect to these mines. Under this

amendment, MSHA has been restrained from enforcing training requirements or providing training assistance to more than 10,000 aggregate operations, resulting in a significant void in safety and health awareness training for a large portion of the mining community. However, the FY 1999 appropriations bill amended the rider language—Congress directed MSHA to promulgate regulations before the end of FY 1999. MSHA published the regulation in the *Federal Register* on September 30, 1999, to become effective on October 2, 2000.

MSHA continued to battle roof fall fatalities in underground coal operations. The Preventive Roof/Rib Outreach Program (PROP) is a new effort to increase awareness among coal mine operators and miners concerning the hazards that lead to fatal roof fall accidents in underground coal mines. It will serve to remind operators and workers of precautions necessary to prevent these accidents—particularly, conducting thorough and frequent checks of the mine roof and never working or walking under unsupported roof. Under this program, MSHA targets mining operations most often cited for violation of rules concerning roof control and walking or working under unsupported roof. Those mines receive increased attention from MSHA inspectors who speak directly to miners and operators about mine roof and rib safety. The inspectors also provide posters, hard hat stickers, and "best practices" cards which state specifically how miners and operators can prevent roof falls from occurring at their mine sites. MSHA provides PROP information on its web site. To kick off the program, MSHA held four seminars in coal mining areas of Kentucky, Virginia, and West Virginia.

To help combat accidents involving coal trucks operated by independent contractors, MSHA offered consultative truck inspections without issuing citations in southern West Virginia, Virginia and Kentucky. The 30- to 40-minute safety check was designed to identify problems with brakes, air systems, drive lines and any mechanical hazards that could adversely affect truck performance. As part of the inspection, MSHA personnel explained what they were checking, showed truck drivers what to include in their own pre-operational checks, discussed causes of trucker fatalities, and provided drivers with safety materials on safe truck operation and maintenance. The idea for penalty-free truck inspections arose during a recent series of independent contractor seminars held around the country.

FY 1999 health initiatives.

Coal dust actions taken in FY 1999 included publishing a book outlining techniques for controlling respirable dust in longwall mining, posting selected coal mine dust sampling data on MSHA's web site, piloting a program of confidential x-rays to collect data on the presence of black lung in the coal mine workforce, and continuing its cooperative effort with the National Institute of Occupational Safety and Health to develop and test a new technology that would permit real-time continuous respirable dust monitoring in underground coal mines. These actions form part of a long-term campaign by MSHA to end black lung following recommendations made in 1996 by the Advisory Committee on the Elimination of Pneumoconiosis Among Coal Mine Workers.

For silica dust and noise, the Agency published an operators' guide to improve operator sampling and established a cooperative initiative between the National Stone Association and MSHA to train operators to conduct their own sampling.

A significant step in protecting miners from occupationally-induced hearing loss is the development of a new noise regulation. MSHA published the new noise rule in the *Federal Register* on September 13, 1999, and will take effect on September 13, 2000. The rule, which cover coal and metal and

nonmetal mines, requires operators to enroll miners in a hearing protection program if they are exposed to an average sound level of 85 decibels or more over an 8-hour period. The programs must include training, hearing tests, and providing hearing protectors. The exposure limit remains unchanged at 90 decibels over an 8-hour period and, where feasible, if engineering and administrative controls cannot reduce the noise to the exposure limit, hearing protectors are required.

2. Performance Review — Reduce injuries in the Nation's mines

2.1 Fatalities

Per FY 1999 Performance Plan:

QUALITY WORKPLACES—Foster quality workplaces that are safe, healthy, and fair	
Outcome Goal (Departmental):	Reduce workplace injuries, illnesses, and fatalities.
MSHA Strategic Goal:	Reduce injuries in the Nation's mines.
Supporting Budget Activity/Decision Unit Titles and P&F Schedules:	Coal Mine Safety and Health (16-1200-01-554.01) Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
Performance Goal (FY 99):	**Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years.**
Indicator:	Coal and metal/nonmetal mine fatalities.
Source of Data:	Mine Accident, Injury, Illness, Employment, and Coal Production System (30 CFR Part 50)
Baseline:	92 average for FY 1994-1998 (five-year average); the five-year moving average will be updated each year.
Comment:	Five year moving average is used to reduce irregular fluctuations in order to highlight trends in performance measure.

Fatality Overview

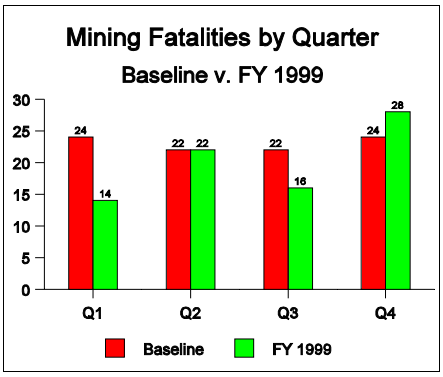
First Quarter: The 14 mining fatalities for the first quarter, FY 1999, are well below the 5-year baseline first quarter average of 24.2 and equal to the first quarter, FY 1998, figure. Seven fatalities were in Coal; 7 fatalities in Metal and Nonmetal.

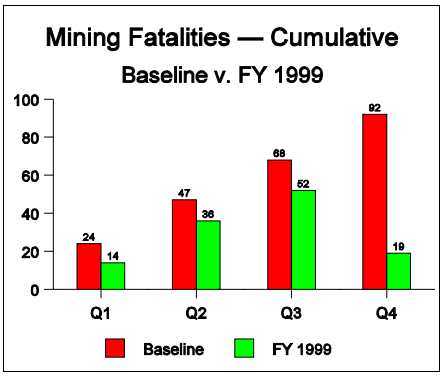
Second Quarter: There were 22 fatalities—9 Coal; 13 Metal and Nonmetal—during this quarter. The cumulative total of 36 fatalities is less than the 37 fatalities by the close of the second quarter, FY 1998, and is well below the 5-year baseline average of 46.6 at the end of the second quarter.
Cumulative: Coal 16; MNM 20

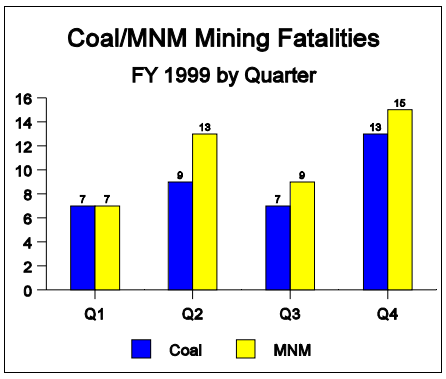
Third Quarter: There were 16 fatalities—7 Coal; 9 Metal and Nonmetal. The cumulative total of 52 fatalities is less than the 55 fatalities by the close of the third quarter, FY 1998, and is well below the the 5-year baseline average of 68.2 at the end of the third quarter.
Cumulative: Coal 23; MNM 29

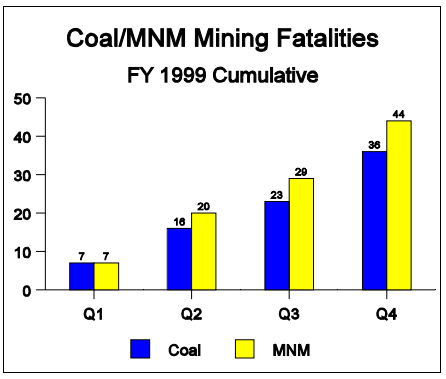
Fourth Quarter: The 29 fourth quarter fatalities—13 Coal; 16 Metal and Nonmetal—bring the fiscal year total to 80 fatalities. This cumulative total is less than the 92 baseline.
Cumulative: Coal 36; MNM 44

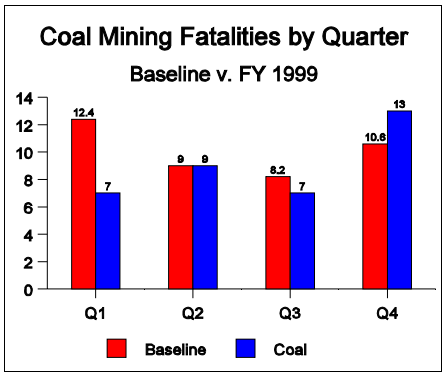
Fatalities	**Baseline** FY 1994-1998 5-Year Average				**FY 1998**				**FY 1999**			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Quarter	24.2	22.4	21.6	24.0	14	23	18	25	14	22	16	29
Cumulative	24.2	46.6	68.2	**92.2**	14	37	55	**80**	14	36	52	**80**

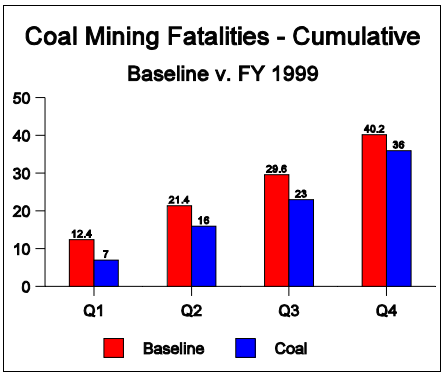


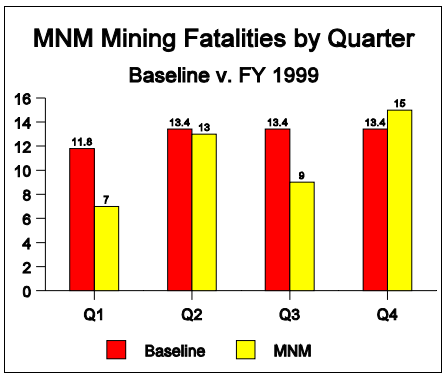


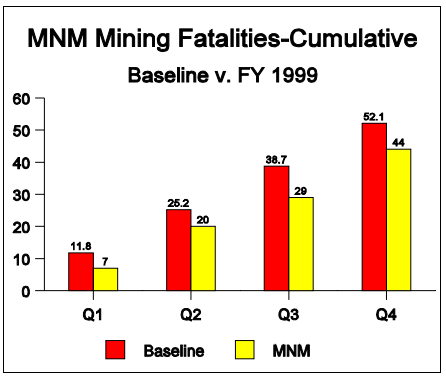

Coal/MNM Mining Fatalities
FY 1999 by Quarter
16
14
12
10
8
6
4
2
0
7 7
9 13
7 9
13 15
Q1 Q2 Q3 Q4
Coal MNM


Coal/MNM Mining Fatalities
FY 1999 Cumulative
50
40
30
20
10
0
7 7
16 20
23 29
36 44
Q1 Q2 Q3 Q4
Coal MNM

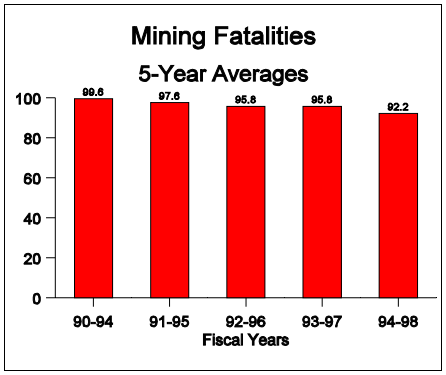

Coal Mining Fatalities by Quarter
Baseline v. FY 1999
14
12
10
8
6
4
2
0
12.4 7
9 9
8.2 7
10.6 13
Q1 Q2 Q3 Q4
Baseline Coal

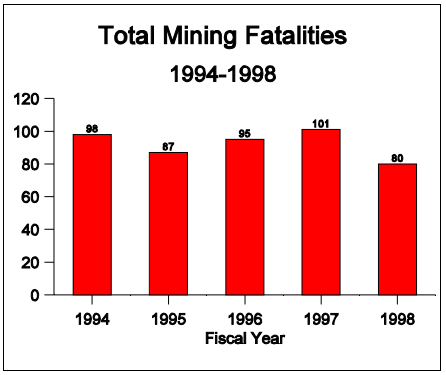

Coal Mining Fatalities - Cumulative
Baseline v. FY 1999
50
40
30
20
10
0
12.4 7
21.4 16
29.6 23
40.2 36
Q1 Q2 Q3 Q4
Baseline Coal

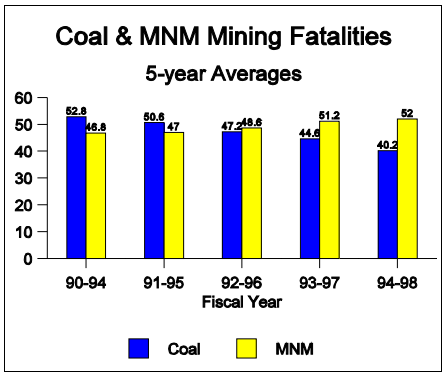

MNM Mining Fatalities by Quarter
Baseline v. FY 1999
16
14
12
10
8
6
4
2
0
11.8 7
13.4 13
13.4 9
13.4 15
Q1 Q2 Q3 Q4
Baseline MNM

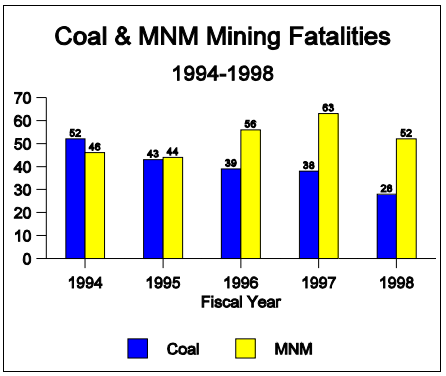

MNM Mining Fatalities-Cumulative
Baseline v. FY 1999
60
50
40
30
20
10
0
11.8 7
25.2 20
38.7 29
52.1 44
Q1 Q2 Q3 Q4
Baseline MNM

Baseline Data









FY 1999 Coal Fatalities: 36

Date	Subunit	State	District	Accident Classification
10:05:1998	Strip, Quary, Open Pit	KY	District 6	Fall of face/rib/pillar/side/highwall
10:10:1998	Underground	KY	District 7	Fall of roof or back
11:22:1998	Surface at Underground	VA	District 5	Mchinery
12:03:1998	Underground	VA	District 5	Mchinery
12:14:1998	Underground	CO	District 9	Fall of roof or back
12:14:1998	Underground	CO	District 9	Fall of roof or back
12:17:1998	Underground	KY	District 7	Powered haulage
01:07:1999	Strip, Quary, Open Pit	KY	District 10	Fall of face/rib/pillar/side/highwall
01:20:1999	Strip, Quary, Open Pit	WV	District 4	Powered haulage
01:29:1999	Underground	VA	District 5	Fall of face/rib/pillar/side/highwall
02:15:1999	Strip, Quary, Open Pit	KY	District 6	Explosives and breaking agents
02:24:1999	Strip, Quary, Open Pit	IN	District 8	Fall of face/rib/pillar/side/highwall
03:04:1999	Underground	KY	District 6	Fall of roof or back
03:11:1999	Underground	KY	District 7	Fall of roof or back
03:12:1999	Underground	WV	District 4	Powered haulage
03:29:1999	Strip, Quary, Open Pit	VA	District 5	Powered haulage
04:11:1999	Mill Operation/Prep Plant	WV	District 4	Mchinery
04:13:1999	Underground	VA	District 5	Fall of roof or back
05:07:1999	Underground	AL	District 11	Slip or fall of person
05:17:1999	Strip, Quary, Open Pit	PA	District 1	Fall of face/rib/pillar/side/highwall
06:07:1999	Underground	MD	District 3	Fall of roof or back
06:08:1999	Auger	KY	District 6	Other
06:28:1999	Mill Operation/Prep Plant	WV	District 4	Powered haulage
07:05:1999	Mill Operation/Prep Plant	KY	District 6	Electrical
07:15:1999	Underground	UT	District 9	Fall of face/rib/pillar/side/highwall
07:22:1999	Underground	WV	District 3	Fall of roof or back
07:26:1999	Strip, Quary, Open Pit	CO	District 9	Mchinery
07:26:1999	Underground	WV	District 4	Mchinery
07:31:1999	Underground	IL	District 8	Fall of roof or back
08:12:1999	Strip, Quary, Open Pit	CO	District 9	Explosives and breaking agents
09:03:1999	Mill Operation/Prep Plant	KY	District 6	Slip or fall of person
09:16:1999	Underground	KY	District 6	Fall of roof or back
09:18:1999	Underground	WV	District 4	Fall of roof or back
09:19:1999	Mill Operation/Prep Plant	VA	District 5	Handling materials
09:24:1999	Underground	OH	District 3	Falling/sliding/rolling materials
09:24:1999	Underground	OH	District 3	Falling/sliding/rolling materials

Coal Fatalities by State:

Kentucky	11
West Virginia	7
Virginia	6
Colorado	4
Ohio	2
Alabama, Illinois, Indiana, Maryland, Pennsylvania, Utah	1

Coal Fatalities by Classification:

Roof falls	11	31%
Fall of face/rib/pillar/highwall	6	17%
Powered haulage	5	14%
Machinery	5	14%
Explosives and breaking agents	2	6%
Slip or fall of persons	2	6%
Falling, rolling, sliding of rock or material	2	6%
Electrical	1	3%
Handling material	1	3%
Other	1	3%
Total	36	

FY 1999 MNM Fatalities: 44

01:27:1999	Mill Operation/Prep Plant	PA	NE	Falling/sliding/rolling materials
02:01:1999	Mill Operation/Prep Plant	IN	NC	Mchinery
02:03:1999	Mill Operation/Prep Plant	VA	NE	Mchinery
02:15:1999	Underground	NV	W	Handtools (nonpowered)
02:15:1999	Strip, Quary, Open Pit	AZ	RM	Powered haulage
02:17:1999	Strip, Quary, Open Pit	TX	SC	Exploding vessels under pressure
02:27:1999	Strip, Quary, Open Pit	TN	SE	Fall of face/rib/pillar/side/highwall
03:15:1999	Strip, Quary, Open Pit	AL	SE	Powered haulage
03:18:1999	Strip, Quary, Open Pit	NY	NE	Powered haulage
03:29:1999	Strip, Quary, Open Pit	AL	SE	Mchinery
04:01:1999	Underground	NV	W	Slip or fall of person
04:07:1999	Strip, Quary, Open Pit	OH	NC	Mchinery
04:08:1999	Strip, Quary, Open Pit	UT	RM	Ignition or explosion of gas or dust
05:07:1999	Dredge	TN	SE	Other
05:10:1999	Strip, Quary, Open Pit	NC	SE	Powered haulage
05:18:1999	Underground	NM	SC	Other
05:26:1999	Strip, Quary, Open Pit	TN	SE	Ignition or explosion of gas or dust
06:27:1999	Strip, Quary, Open Pit	KS	RM	Handling of materials
06:28:1999	Strip, Quary, Open Pit	OR	W	Mchinery
07:01:1999	Strip, Quary, Open Pit	NV	W	Electrical
07:07:1999	Strip, Quary, Open Pit	CO	RM	Slip or fall of person
07:09:1999	Strip, Quary, Open Pit	IN	NC	Mchinery
07:21:1999	Surface at Underground	CO	RM	Powered haulage
07:22:1999	Strip, Quary, Open Pit	MI	NC	Slip or fall of person
07:25:1999	Mill Operation/Prep Plant	MI	NC	Powered haulage
07:27:1999	Strip, Quary, Open Pit	AZ	RM	Powered haulage
07:30:1999	Strip, Quary, Open Pit	KS	RM	Powered haulage
08:06:1999	Strip, Quary, Open Pit	MI	NC	Powered haulage
08:09:1999	Strip, Quary, Open Pit	AZ	RM	Powered haulage
08:12:1999	Strip, Quary, Open Pit	AL	SE	Powered haulage
09:07:1999	Mill Operation/Prep Plant	SC	SE	Electrical
09:16:1999	Mill Operation/Prep Plant	WY	RM	Powered haulage
09:20:1999	Strip, Quary, Open Pit	NV	W	Slip or fall of person
09:29:1999	Underground	IA	NC	Powered haulage

MNM Fatalities by State:

Nevada, Tennessee	5
Alabama, Arizona, Colorado, Michigan,	3
Illinois, Indiana, Kansas, Utah	2
Arkansas, Iowa, Kentucky, Louisiana, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Texas, Virginia, Wyoming	1

MNM Fatalities by Classification:

Powered haulage	18	41%
Machinery	6	14%
Slip or fall of persons	5	11%
Falling, rolling, sliding of rock or material	3	7%
Other	3	7%
Fall of face, rib, pillar, side, highwall	2	5%
Electrical	2	5%
Ignition or explosion	2	5%
Exploding vessels under pressure	1	2%
Handling of materials	1	2%
Handtools (nonpowered)	1	2%
Total	44	

All Mines -- Fatality Classification

Powered haulage	23	29%
Roof falls	11	14%
Machinery	11	14%
Fall of face/rib/pillar/highwall	8	10%
Slip or fall of persons	7	9%
Falling, rolling, sliding of rock or material	5	6%
Other	4	5%
Electrical	3	4%
Explosives and breaking agents	2	3%
Handling material	2	3%
Ignition or explosion	2	3%
Exploding vessels under pressure	1	1%
Handtools (nonpowered)	1	1%
Total	80	

2.2 NFDL Rate

Per FY 1999 Performance Plan:

QUALITY WORKPLACES—Foster quality workplaces that are safe, healthy, and fair	
Outcome Goal (Departmental):	Reduce workplace injuries, illnesses, and fatalities.
MSHA Strategic Goal:	Reduce injuries in the Nation's mines.
Supporting Budget Activity/Decision Unit Titles and P&F Schedules:	Coal Mine Safety and Health (16-1200-01-554.01) Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
Performance Goal (FY 99):	**Reduce mine industry injuries (nonfatal-days-lost incidence rate) to below the average number recorded for the previous 5 years.**
Indicator:	Coal and metal/nonmetal mine industry nonfatal-days-lost incidence rate.
Source of Data:	Mine Accident, Injury, Illness, Employment, and Coal Production System (30 CFR Part 50)
Baseline:	4.29 average incident rate for FY 1993-1997; the five-year moving average will be updated each year. (Update: 4.07 rate for FY 1994-1998)
Comment:	Five year moving average is used to reduce irregular fluctuations in order to highlight trends in performance measure.

Nonfatal-Days-Lost Injury Incidence (NFDL) Rate Overview

First Quarter: The NFDL rate showed a steady decline from FY 1994 to FY 1997, but rose slightly (2.7%) between FY 1997 and FY 1998. The NFDL rate of 3.21 for the first quarter, FY 1999, is below the 5-year baseline first quarter average of 3.85 and below the first quarter, FY 1998, rate of 3.39.

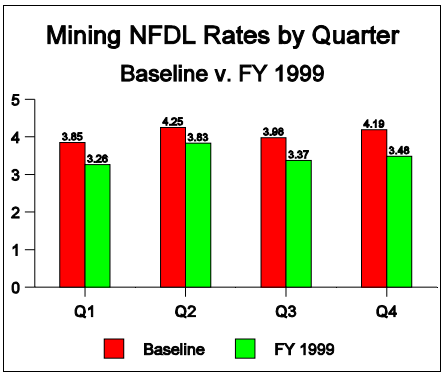
Second Quarter: The second quarter FY 1999 cumulative NFDL rate of 3.53 is less than the baseline cumulative rate of 4.05 and the FY 1998 second quarter cumulative rate of 3.67.

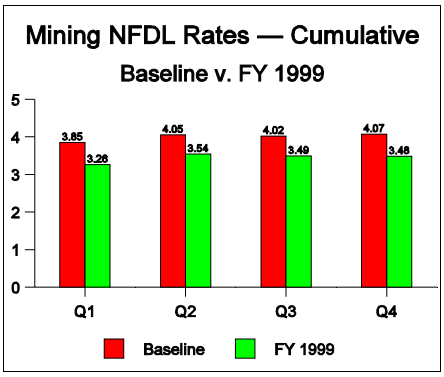
Third Quarter: The third quarter NFDL rates continue the positive trend: the cumulative rate of 3.49 is well below the baseline cumulative rate of 4.02 and below the third quarter FY 1998 cumulative rate of 3.71.

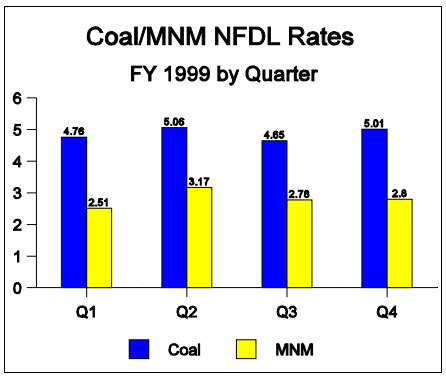
Fourth Quarter: The year-end NFDL rate of 3.48 is below baseline and FY 1998 NFDL rates.

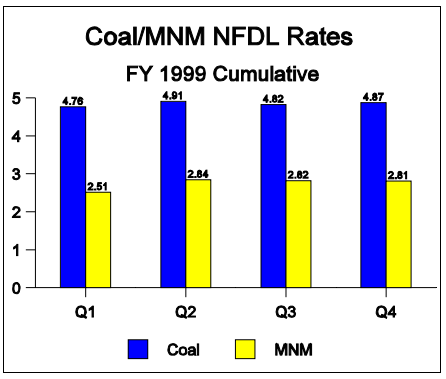
NFDL Rate	**Baseline** FY 1994-1998 5-Year Average				**FY 1998**				**FY 1999**			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Quarter	3.85	4.25	3.98	4.19	3.39	3.93	3.81	3.88	3.26	3.83	3.37	3.48
Cumulative	3.85	4.05	4.02	**4.07**	3.39	3.66	3.71	**3.75**	3.26	3.54	3.49	**3.48**

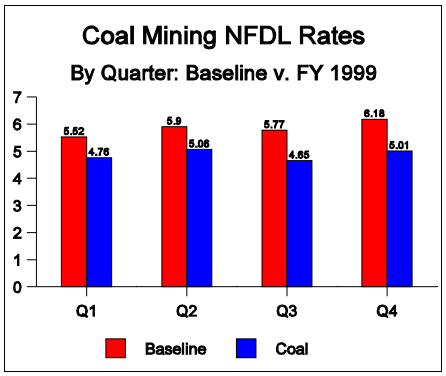
A/O 1/14/2000 Teradata query.

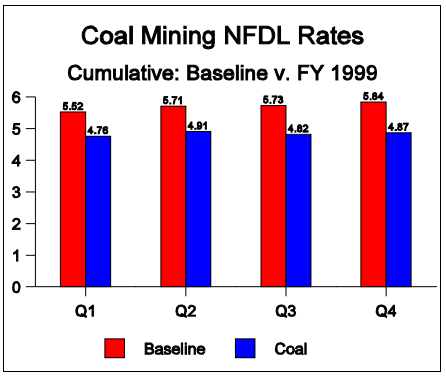


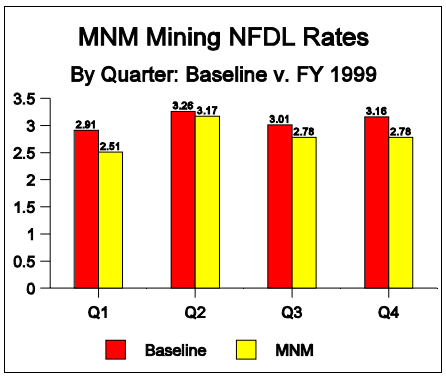


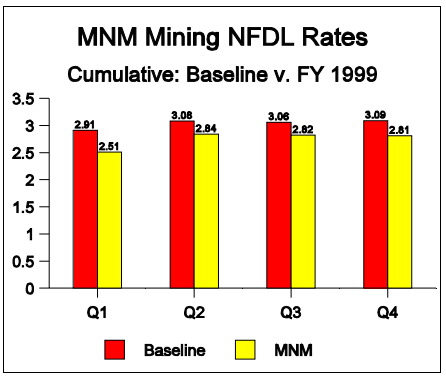

Coal/MNM NFDL Rates
FY 1999 by Quarter
6
5
4
3
2
1
0
4.76
2.51
5.06
3.17
4.65
2.78
5.01
2.8
Q1
Q2
Q3
Q4
Coal
MNM


Coal/MNM NFDL Rates
FY 1999 Cumulative
5
4
3
2
1
0
4.76
2.51
4.91
2.84
4.82
2.82
4.87
2.81
Q1
Q2
Q3
Q4
Coal
MNM

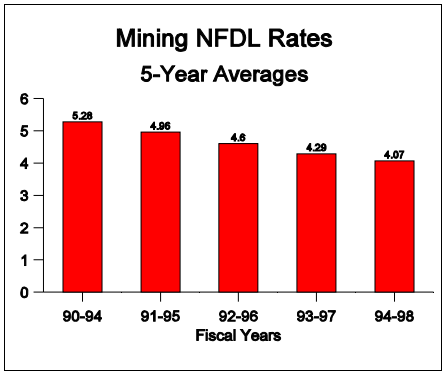

Coal Mining NFDL Rates
By Quarter: Baseline v. FY 1999
7
6
5
4
3
2
1
0
5.52
4.76
5.9
5.06
5.77
4.65
6.18
5.01
Q1
Q2
Q3
Q4
Baseline
Coal

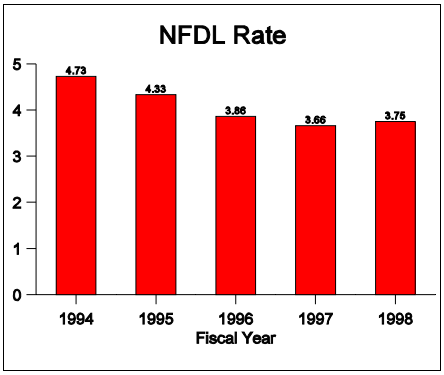

Coal Mining NFDL Rates
Cumulative: Baseline v. FY 1999
6
5
4
3
2
1
0
5.52
4.76
5.71
4.91
5.73
4.82
5.84
4.87
Q1
Q2
Q3
Q4
Baseline
Coal

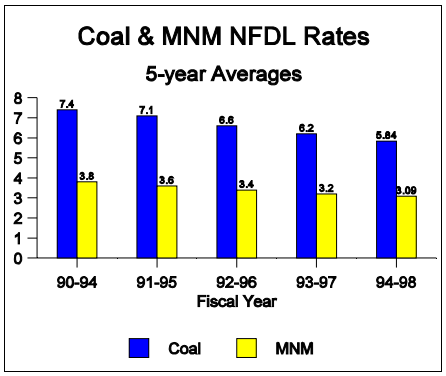

MNM Mining NFDL Rates
By Quarter: Baseline v. FY 1999
3.5
3
2.5
2
1.5
1
0.5
0
2.91
2.51
3.26
3.17
3.01
2.78
3.16
2.78
Q1
Q2
Q3
Q4
Baseline
MNM

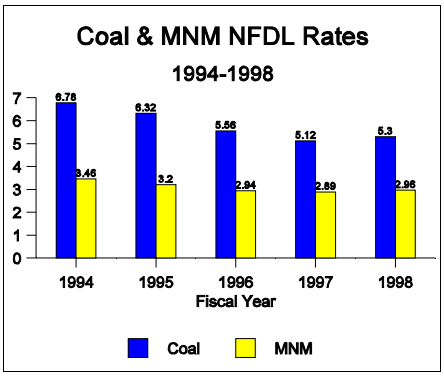

MNM Mining NFDL Rates
Cumulative: Baseline v. FY 1999
3.5
3
2.5
2
1.5
1
0.5
0
2.91
2.51
3.08
2.84
3.06
2.82
3.09
2.81
Q1
Q2
Q3
Q4
Baseline
MNM

Baseline Data









3. Performance Review — Reduce overexposures to health hazards

3.1 Coal Dust Compliance

Per FY 1999 Performance Plan:

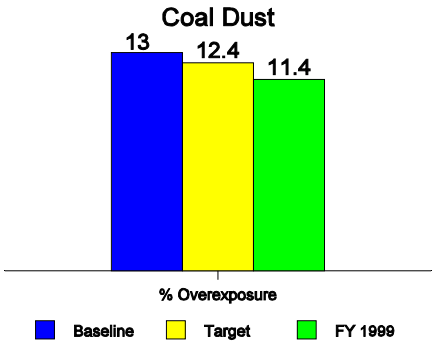
QUALITY WORKPLACES—Foster quality workplaces that are safe, healthy, and fair	
Outcome Goal (Departmental):	Reduce workplace injuries, illnesses, and fatalities.
MSHA Strategic Goal:	Reduce miners' overexposure to health hazards.
Supporting Budget Activity/Decision Unit Titles and P&F Schedules:	Coal Mine Safety and Health (16-1200-01-554.01) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
Performance Goal (FY 99):	**Reduce by 5% the percentage of samples out of compliance with the respirable coal mine dust standard in FY 1999.**
Indicator:	Compliance with the coal mine dust standard.
Source of Data:	Coal Safety and Health Management Information System.
Baseline:	To be determined in FY 1999 due to court decision on "single shift sampling."
Comment:	Respirable dust is one of the three major health hazards to miners. Prevention of black lung disease is a priority health initiative.

Baseline: FY 1998, 3,773 coal dust samples were taken by MSHA inspectors with 489 not in compliance with the coal dust standard, for a 13% over-exposure rate. MSHA is continuing to refine the coal dust baseline to align it to Agency efforts in targeting and assisting mines with compliance problems.

Second Quarter: A/O June 15, 1999, a 12.2 % over-exposure rate at a 6% reduction exceeds the 5% annual target.

Third Quarter: No data reported.

Fourth Quarter: In FY 1999 there were 679 samples not in compliance out of 5,969 inspector samples. The percent of non-compliant samples was 11.4%. The 12.2% reduction from the baseline exceeds the annual performance goal of a 5% reduction.


Coal Dust
13
12.4
11.4
% Overexposure
Baseline
Target
FY 1999

3.2 Silica Dust Compliance

Per FY 1999 Performance Plan:

QUALITY WORKPLACES—Foster quality workplaces that are safe, healthy, and fair	
Outcome Goal (Departmental):	Reduce workplace injuries, illnesses, and fatalities.
MSHA Strategic Goal:	Reduce miners' overexposure to health hazards.
Supporting Budget Activity/Decision Unit Titles and P&F Schedules:	Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
Performance Goal (FY 99):	**Reduce by 5% the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations in FY 1999.**
Indicator:	Compliance with the permissible level for silica exposure in metal and nonmetal mines.
Source of Data:	Metal and Nonmetal Safety and Health Management Information System.
Baseline:	1995-1997 baseline index set at 100; FY 1999 index target at 95 or less. FY 1998 data results at 72.
Comment:	Respirable silica dust is one of the three major health hazards to miners and is prevalent in metal and nonmetal mining operations. Prevention of silicosis is a priority health initiative.

Baseline: The FY 1995-1997 baseline data is given a GPRA rating index of 100 based on 2,775 citable dust samples out of 12,855 dust samples that meet the three criteria (SIC, mine type, and job) established to identify the 35 highest risk occupational categories. The baseline is adjusted to align itself with the makeup of the sampling conducted at a given time in the current year. This takes into account and ensures that the mix of occupations and locations of the samples is compared to a similar content of the baseline data.

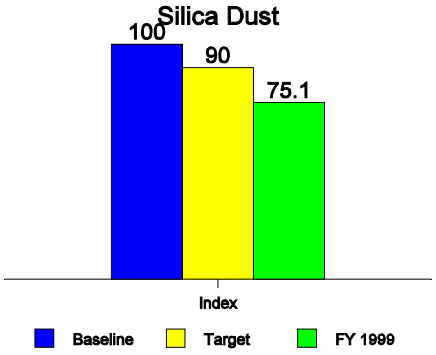
First Quarter—Revised (MNM Health database run: 4/7/99): There were 156 samples taken that met the GPRA high risk occupational category definition during the first quarter of FY 1999. Of these, 35 were citable. This corresponds to a GPRA rating index of 113.4, which is above the target of 95. This is not unexpected since MSHA is focusing its dust sampling efforts on those mines most in need of improved compliance. This represents a change in strategy from prior years when sampling efforts and resources did not consider the exposure history in targeting the specific mines to sample.

Second Quarter: Insufficient data as of April 9, 1999.

Third Quarter: Data issues under review.

Fourth Quarter: In FY 1999, 87.3% of respirable dust samples taken in the highest risk job categories were within acceptable enforcement levels, an increase from the 81.9% recorded during the 1997-1998 baseline

period. In order to provide an accurate dust measure that accounts for changes in the types of mines, commodities, and jobs sampled, MSHA uses an index that prevents bias across the occupational category sample distribution. The FY 1999 index of 75.1 is based on 980 samples with 124 not in compliance when compared to the comparable baseline sample population. This positive result is considerably lower than the index target of 90.



Per FY 1999 Performance Plan:

QUALITY WORKPLACES—Foster quality workplaces that are safe, healthy, and fair	
Outcome Goal (Departmental):	Reduce workplace injuries, illnesses, and fatalities.
MSHA Strategic Goal:	Reduce miners' overexposure to health hazards.
Supporting Budget Activity/Decision Unit Titles and P&F Schedules:	Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
Performance Goal (FY 99):	**Reduce the percentage of cases where the abatement time for silica overexposures exceeded 6 months in metal and nonmetal mines.**
Indicator:	Abatement time for silica overexposures in metal/nonmetal mines.
Source of Data:	Metal and Nonmetal Safety and Health Management Information System.
Baseline:	To be determined in FY 1999.
Comment:	This indicator measures the time between the sampling, identification, and notification of overexposure to the time a mine comes into compliance through corrective actions. After the baseline is established, the goal is to incrementally reduce the abatement time for overexposure by 2% by the end of FY 2002.

This measure requires a database link within the MNM MIS and was delayed due to Y2K priorities. The goal is being reviewed based on recommendations from the contractor study on Agency measure.

3.3 Noise Compliance

Per FY 1999 Performance Plan:

QUALITY WORKPLACES—Foster quality workplaces that are safe, healthy, and fair	
Outcome Goal (Departmental):	Reduce workplace injuries, illnesses, and fatalities.
MSHA Strategic Goal:	Reduce miners' overexposure to health hazards.
Supporting Budget Activity/Decision Unit Titles and P&F Schedules:	Metal and Nonmetal Mine Safety and Health (16-1200-01-554.02) Standards Development (16-1200-01-554.03) Assessments (16-1200-01-554.04) Educational Policy and Development (16-1200-01-554.05) Technical Support (16-1200-01-554.06) Program Administration (16-1200-01-554.07)
Performance Goal (FY 99):	**Reduce by 5% the percentage of samples in metal and nonmetal mines out of compliance with the noise standard for the highest risk occupations in FY 1999.**
Indicator:	Compliance with the permissible level for noise in metal/nonmetal mines.
Source of Data:	Metal and Nonmetal Safety and Health Management Information System.
Baseline:	1995-1997 baseline index set at 100; FY 1999 index target at 95 or less. FY 1998 data results at 106.
Comment:	Noise is one of the three major health hazards to mine workers. The measure is restricted to metal and nonmetal mines since regulations in the coal mining industry require miners to wear hearing protection.

Baseline: The FY 1995–1997 baseline data for samples out of compliance with the noise standard for the 42 highest risk occupations is given a GPRA rating index of 100. The baseline is adjusted to align itself with the makeup of the sampling conducted at a given time in the current year. This takes into account and ensures that the mix of occupations and locations of the samples is compared to a similar content of the baseline data.

First Quarter—Revised (MNM Health database run: 4/7/99): For the first quarter, FY 1999, there were 58 citable samples out of 140 samples versus the 1995–1997 baseline of 2,801 citable samples out of 8,385 samples for the 42 highest risk occupations. This gives a GPRA rating index of 115.1 which is above the target of 95. As with dust sampling, this is not unexpected since MSHA is focusing its noise sampling efforts on those mines most in need of improved compliance and is in keeping with the change in strategy from prior years when sampling efforts and resources did not consider the exposure history in targeting the specific mines to sample.

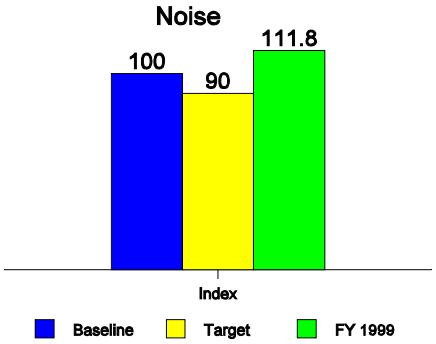
Second Quarter: Insufficient data as of April 9, 1999.

Third Quarter: Data issues under review.

Fourth Quarter: Giving greater emphasis to reduction of noise risk is evidenced by the preliminary results of non-compliant noise samples with a GPRA index rating of 111.8 which did not meet the FY 1999 index

target of 90. Revised 1997-1998 baseline period developed. In order to provide an accurate dust measure that accounts for changes in the types of mines, commodities, and jobs sampled, MSHA uses an index that prevents bias across the occupational category sample distribution.

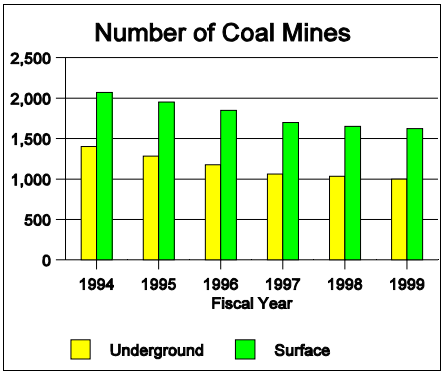
MSHA published the new noise rule in the *Federal Register* on September 13, 1999, and will take effect on September 13, 2000. The rule, which cover coal and metal and nonmetal mines, requires operators to enroll miners in a hearing protection program if they are exposed to an average sound level of 85 decibels or more over an 8-hour period. The programs must include training, hearing tests, and providing hearing protectors. The exposure limit remains unchanged at 90 decibels over an 8-hour period and, where feasible, if engineering and administrative controls cannot reduce the noise to the exposure limit, hearing protectors are required.



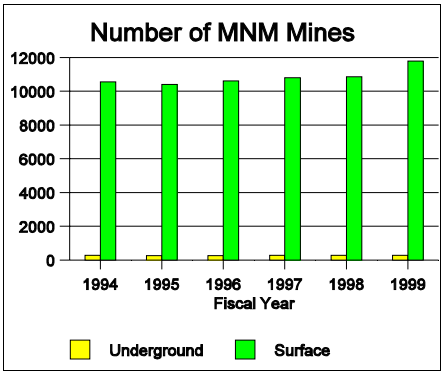
Appendix A: Mine Industry Information

Fiscal Year	1994	1995	1996	1997	1998	1999Est.
Total Mines	**14,305**	**13,915**	**13,915**	**13,849**	**13,822**	**14 ,695**
Coal	**3,472**	**3,236**	**3,025**	**2,763**	**2,690**	**2,625**
Underground	1,402	1,284	1,175	1,064	1,032	1,000
Surface	2,070	1,952	1,850	1,699	1,658	1,625
MNM	**10,833**	**10,679**	**10,890**	**11,086**	**11,132**	**12,070**
Underground	272	263	266	274	270	270
Surface	10,561	10,416	10,624	10,812	10,862	11,800

Source: FY 2000 Budget Briefing Book



Source: FY 2000 Budget Briefing Book



Source: FY 2000 Budget Briefing Book

Mine Industry Workforce (Teradata 1/15/1999—Average by subunit; FY 1999 data—2/4/2000))

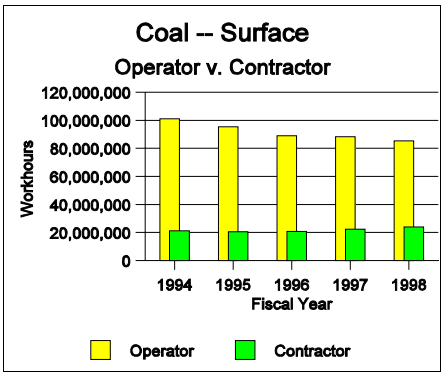
Fiscal Year	1994	1995	1996	1997	1998	1999
Total Employment	**358,879**	**353,803**	**359,270**	**363,809**	**363,604**	**356,762**
Coal	**143,443**	**135,762**	**127,358**	**127,778**	**123,944**	**116,901**
Underground	65,026	61,450	57,636	56,345	54,498	50,317
Surface	70,127	66,152	62,452	63,917	62,411	59,915
Office	8,290	8,160	7,270	7,516	7,035	6,669
MNM	**215,436**	**218,041**	**231,912**	**236,031**	**239,660**	**239,861**
Underground	14,197	15,283	16,416	16,852	15,998	15,597
Surface	171,890	174,360	186,362	189,763	193,566	194,310
Office	29,349	28,398	29,134	29,416	30,096	29,954

Total employment in the mining industry during the last 5 years (FY 1994-FY1998) has been at its highest in FY 1997 and FY 1998, with a 5-year average at 359,873 employees per fiscal year.

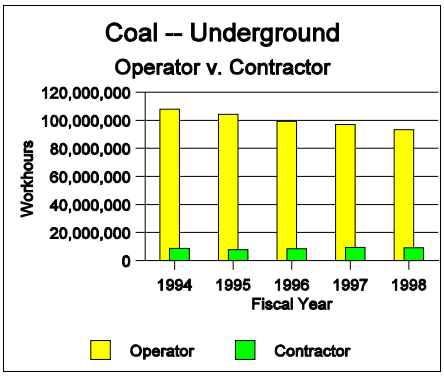
- Coal employment has steadily declined during this period, dropping 14% between FY 1994 and FY 1998.

- Metal and Nonmetal employment has steadily increased, rising 11% from FY 1994 to FY 1998.

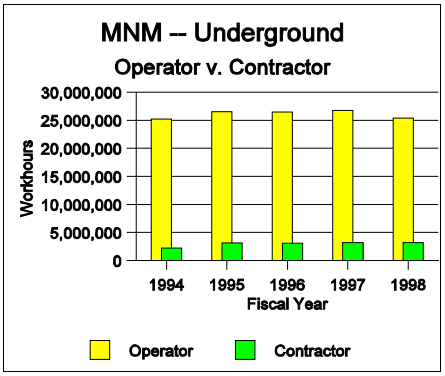
Comparisons between FY 1994 and FY 1998 workhours show marked increases in contractor hours, particularly in the Metal and Nonmetal sector.



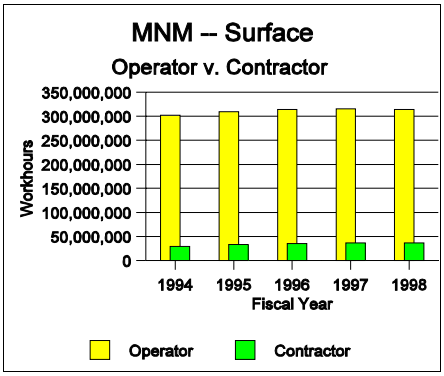
In surface coal operations, operator hours decreased 16% while contractor hours increased 12%.



In underground coal mines, operator workhours decreased 14% whereas contractor hours increased by 5%

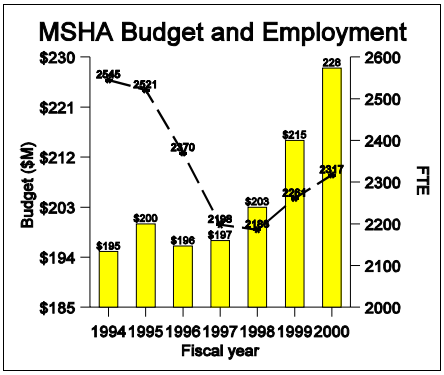


In metal and nonmetal underground mines, operator hours have remained stable with contractor hours increasing significantly at 44% between FY 1994 and FY 1998.

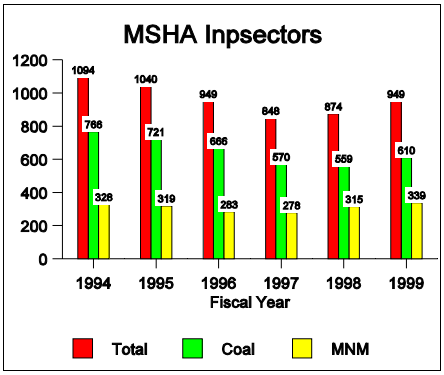


At surface metal and nonmetal operations, operator hours increased 3% between FY 1994 and FY 1998 and contractor hours increased 24% during this time.

Appendix B: MSHA Resources

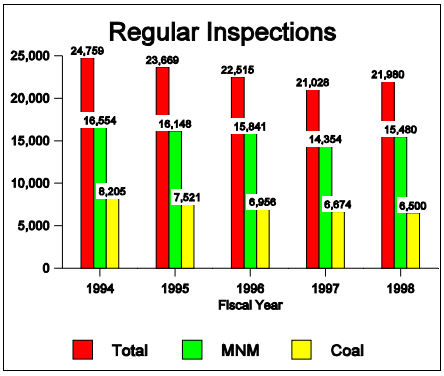


Source: FY 2000 Budget Briefing Book (includes FY 2000 Budget Request)

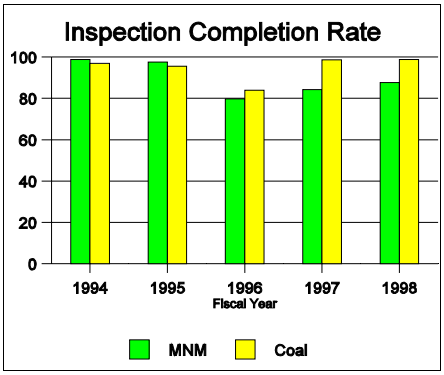


Source: FY 2000 Budget Briefing Book (includes FY 2000 Budget Request)

Appendix C: MSHA Outputs



Source: FY 2000 Budget Briefing Book



Source: FY 2000 Budget Briefing Book